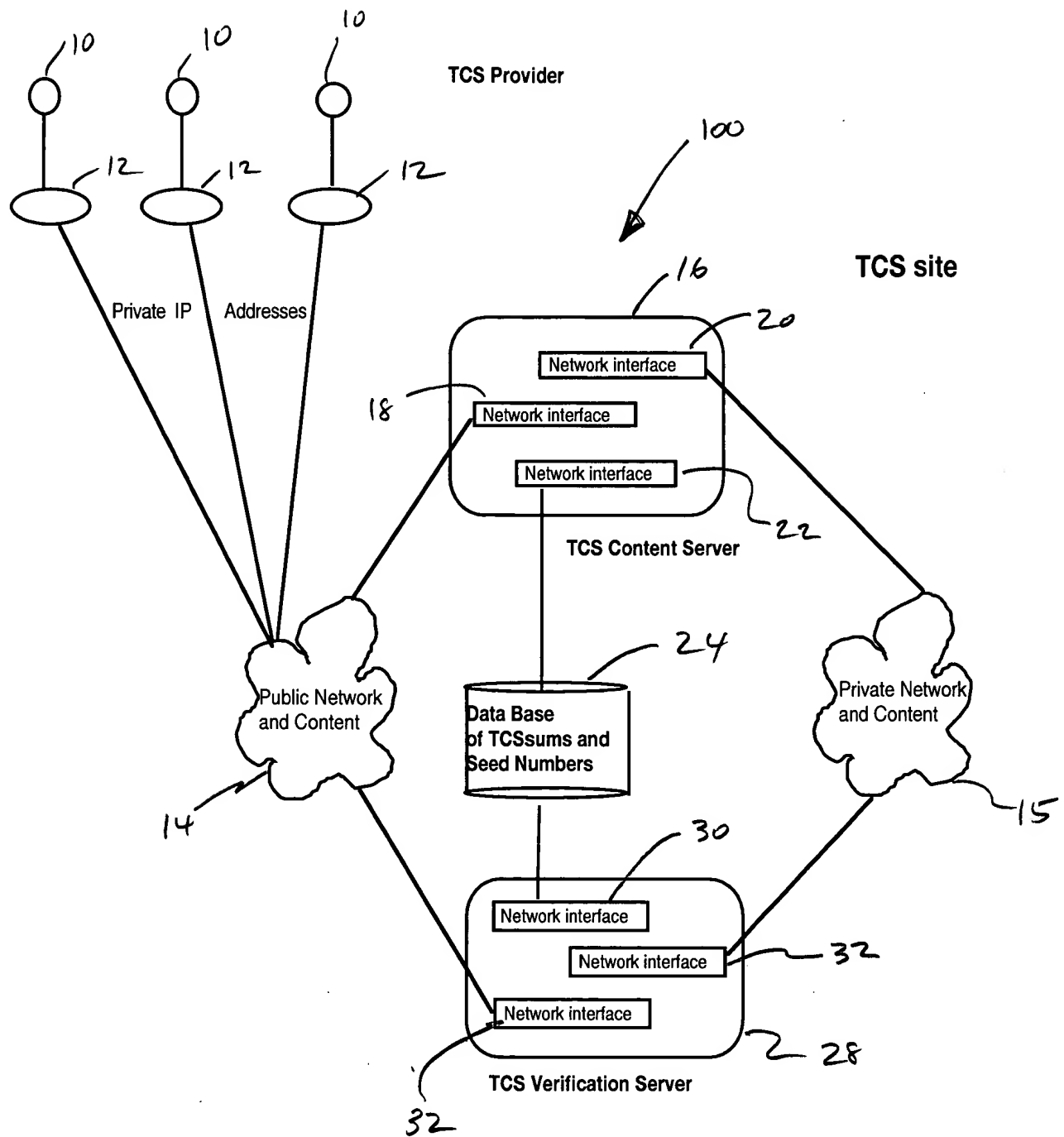
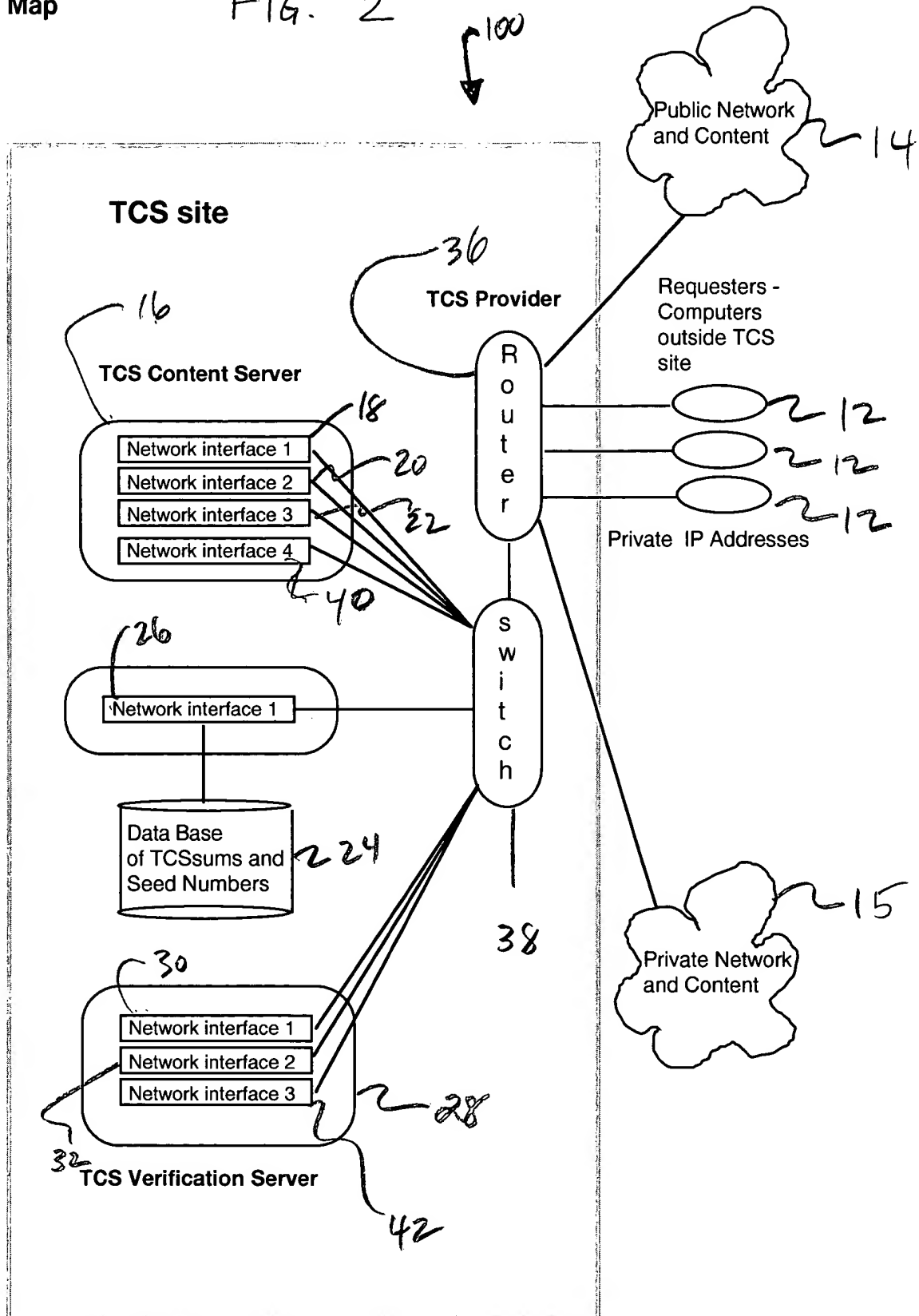


FIG. 1



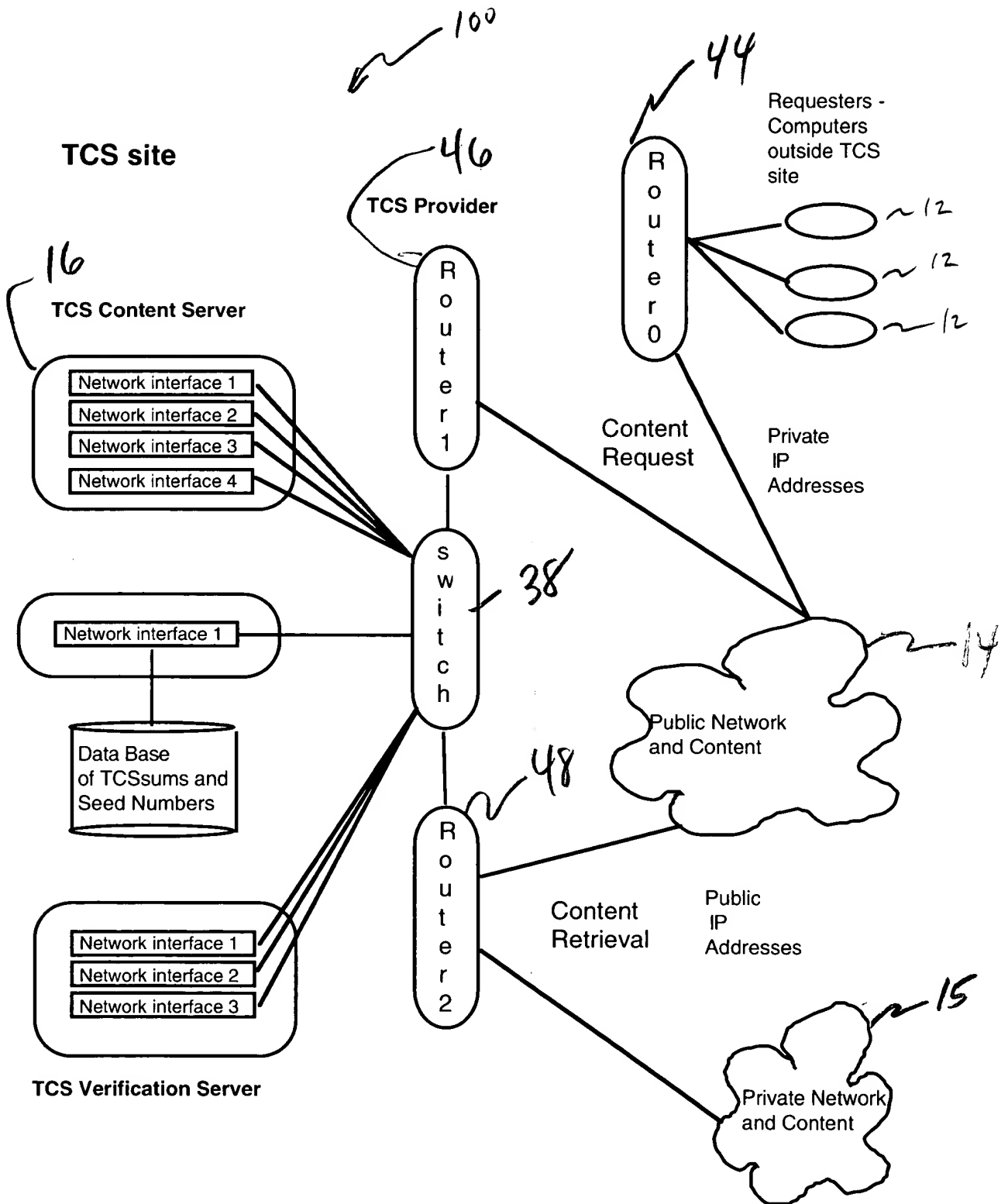
TCS Site Map

FIG. 2



TCS Site Map

FIG. 3

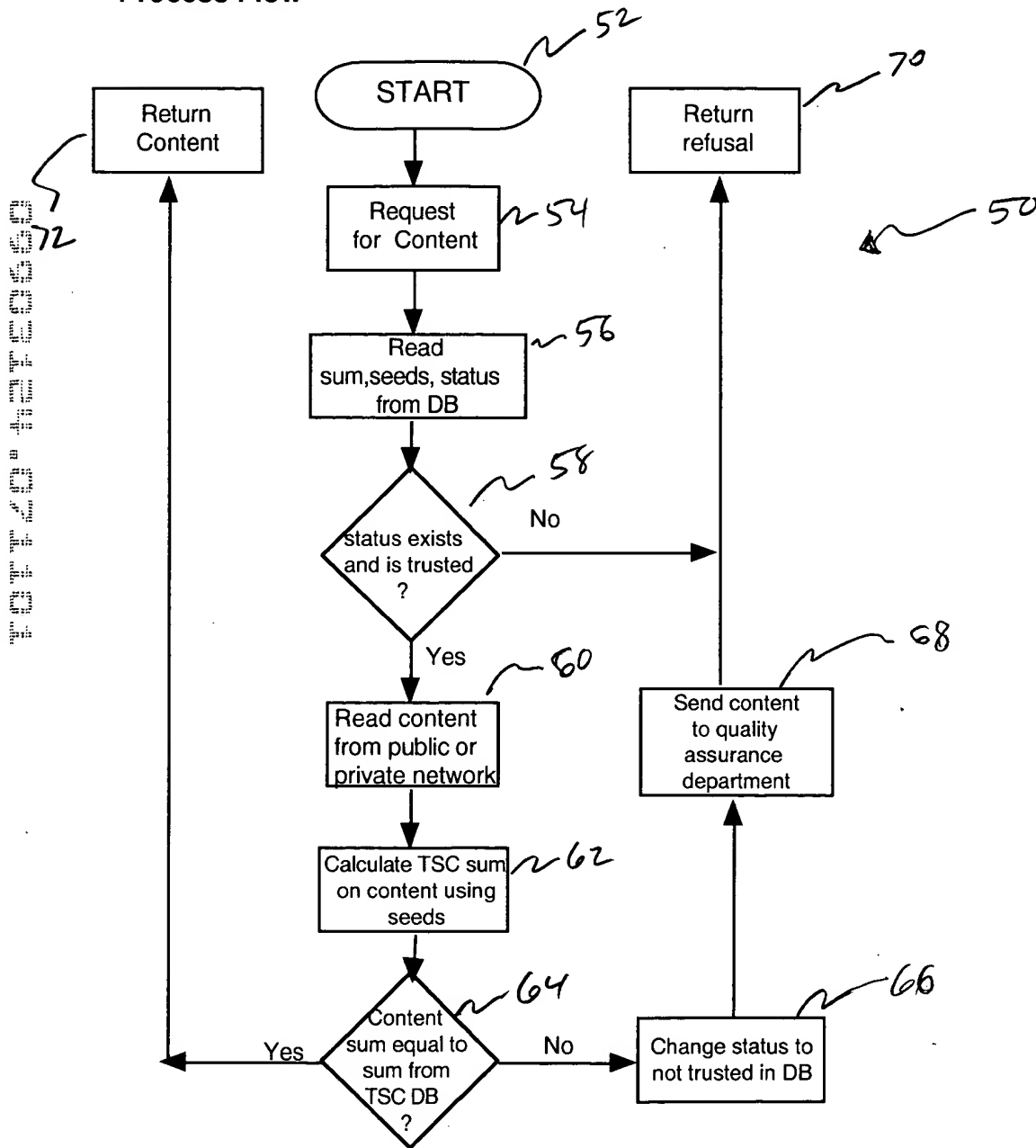


TCS Content Server

FIG. 4

The Content Server is a separate computer with four network interface cards (NICs). It receives requests for content from the TCS Provider and either sends the content back or refuses the request based on verification of the content. The separate NICs allows the Content Server to control all flow of data.

Process Flow



```

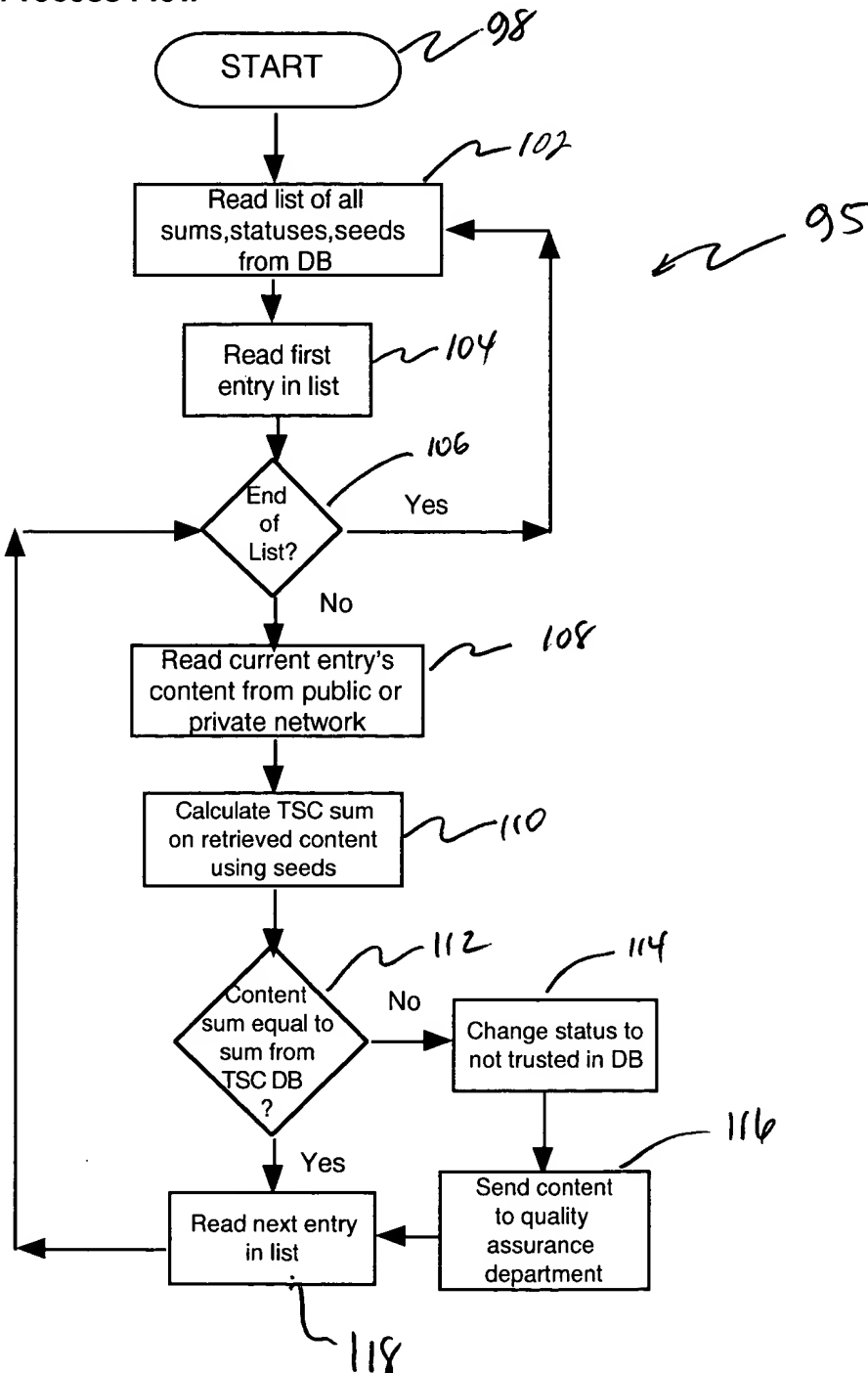
graph TD
    START([START]) --> Init[set length to length of content  
set start to zero  
set TCS sum to zero]
    Init --> Exist{seeds exist?}
    Exist -- No --> Calc[Calculate TCS LR and RL seeds]
    Exist -- Yes --> GetChar1[Get first character in content]
    Calc --> GetChar1
    GetChar1 --> EndContent{End of Content?}
    EndContent -- Yes --> Return[Return TCS Sum]
    EndContent -- No --> Add[add (LR seed * start * character) to TCS sum  
add (RL seed * length * character) to TCS sum]
    Add --> IncDec[increment start  
decrease length]
    IncDec --> GetChar2[Get next character in content]
    GetChar2 --> EndContent

```

TCS Verification Server

The Verification Server constantly cycles through the database and verifies that the content in the public and private networks matches the information stored within the database. If a difference is found the database is updated with a not trusted status for the content and it is send to quality assurance for review.

Process Flow



TCS Database

The TCS Database stores TCS sum values, statuses, and seed numbers for all content considered trusted. The values are stored by TSC ID for easy access. All content identifiers (location e.g., URL) are cross referenced to TSC IDs via the TCS ID Table.

TCS Database Layout

TCS Content Table

| | | |
|-------|-------------|-----------|
| 122 * | TSC ID | integer |
| 124 * | TSC SUM | integer |
| 126 * | TSC STATUS | character |
| 128 * | TSC LR SEED | integer |
| 130 * | TSC RL SEED | integer |

✓ 105

TCS Content ID Table

| | | |
|-------|------------|-----------|
| 132 * | TSC ID | integer |
| 134 * | TSC ID SEQ | integer |
| 136 * | Content ID | character |

✓ 115

* Table Key